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EXAMINER

LEIBY, CHRISTOPHER E

ART UNIT	PAPER NUMBER
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2629

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10/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,192	Applicant(s) HUITEMA ET AL.	
	Examiner CHRISTOPHER E. LEIBY	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/13/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/13/2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. **Claims 1-11** are pending.

Information Disclosure Statement

2. The information disclosure statement filed 9/25/2007 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the IDS lists Patent 0656062 as relevant art. Examiner believes this to be a typographical error as patent 0656062 references a revolving door patented in 1900 as indicated on the IDS. Examiner has corrected the error to the insinuated correct patent. If the insinuated correct patent is in fact in error, applicant should refile following the steps below; otherwise no other action is needed.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-3, 6-7, and 9-11** are rejected under 35 U.S.C. 102(b) as being anticipated by **Ohno et al.** (US Patent 5,734,365), herein after referred to as Ohno.

Regarding **independent claim 1**, Ohno discloses a display unit comprising a display panel with bi-stable pixels (*column 1 lines 19-24 reference bistable modes for an LCD*); and selection circuitry for (*figure 3 reference 302*), during a period of a first duration (*figure 4 reference either first scanning signal or second scanning signal which have a duration of 2H*), selecting a line with pixels (*column 5 lines 19-22 wherein the process of scanning includes selecting a pixel*); and means for supplying a data signal to a pixel (*figure 3 reference 303*), which data signal comprises a pulse of a second duration (*figure 4 reference any one of the information signal voltage waveforms SEG1-SEG4 wherein a duration is equal to 1H*), which second duration is different from the first duration (*figure 4 reference scanning and information signal durations wherein the scanning duration or first duration is longer than the information duration or second duration by 1H*).

Regarding **claim 2**, Ohno discloses a display unit, wherein the second duration is shorter than the first duration (*figure 4 reference scanning and information*

signal durations wherein the scanning duration or first duration is longer than the information duration or second duration by 1H).

Regarding **claim 3**, Ohno discloses a display unit, wherein a pixel is coupled to a common electrode, with the means comprising common electrode circuitry for driving the pixel via the common electrode (*figure 4 reference VC which is the common voltage/reference voltage supplied to each pixel*).

Regarding **claim 6**, Ohno discloses a display unit, wherein the means comprise circuitry coupled to the selection circuitry for selecting at least two lines simultaneously (*abstract reference allowing two lines of scanning signal electrode to scan during a write pulse and figure 3 reference 302, 304, and 305*).

Regarding **claim 7**, Ohno discloses a display unit, wherein the means comprise circuitry coupled to data circuitry for coupling at least two data electrodes to each other (*abstract reference allowing two lines of scanning signal electrode to scan during a write pulse, which allows the data pulse to be written into two pixels simultaneously, and figure 3 reference 303, 306, and 305*).

Regarding **claim 9**, Ohno discloses a display device comprising a display unit and further comprising a storage medium for storing information to be displayed (*column 1 lines 19-24 reference bistable modes for an LCD for high speed use and memory type display device, wherein the point of a bistable LCD is to allow the bistable crystals to hold position depending on the display state [normal positions being 0, 180, and 360 degrees with a reset pulse and position to realign the crystals] this allows the pixels to hold data even when the data signal is longer being sent or when power is longer being supplied, hence a bistable pixel is a storage medium*).

Regarding **independent claim 10**, Ohno discloses a method for driving a display unit comprising a display panel with bi-stable pixels (*column 1 lines 19-24 reference bistable modes for an LCD*); and selection circuitry for (*figure 3 reference 302*), during a period of a first duration (*figure 4 reference either first scanning signal or second scanning signal which have a duration of 2H*), selecting a line with pixels (*column 5 lines 19-22 wherein the process of scanning includes selecting a pixel*); and means for supplying a data signal to a pixel (*figure 3 reference 303*), which data signal comprises a pulse of a second duration (*figure 4 reference any one of the information signal voltage waveforms SEG1-SEG4 wherein a duration is equal to 1H*), which second duration is different from the first duration (*figure 4 reference scanning and information signal durations wherein the scanning duration or first duration is longer than the information duration or second duration by 1H*), wherein the second duration is shorter than the first duration (*figure 4 reference scanning and information signal durations wherein the scanning duration or first duration is longer than the information duration or second duration by 1H*).

Regarding **independent claim 11**, Ohno discloses a processor program product (*it is inherent that a processor program product exists for Ohno circuitry shown in figure 3 otherwise the display device would not operate correctly*) for driving a display unit comprising a display panel with bi-stable pixels (*column 1 lines 19-24 reference bistable modes for an LCD*); and selection circuitry for (*figure 3 reference 302*) during a period of a first duration(*figure 4 reference either first scanning signal or second scanning signal which have a duration of 2H*), selecting a line with pixels (*column 5 lines 19-22 wherein the process of scanning includes selecting a pixel*); which processor program product comprises a function of supplying a data signal to a pixel (*figure 3 reference 303*),

which data signal comprises a pulse of a second duration, which second duration is different from the first duration (*figure 4 reference scanning and information signal durations wherein the scanning duration or first duration is longer than the information duration or second duration by 1H*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 4, 5, and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohno** as applied to claim 1 above, in view of **Aoki** (*US Patent Application Publication 2002/0067324*), and further in view of **Yamakawa et al.** (*US Patent Application Publication 2003/0156089*), herein after referred to as Yamakawa.

Regarding **claims 4, 5, and 8**, Ohno discloses a display unit (figure 3 reference 301), with a methodology of having opposing phase for information/data pulses to make the average information pulse zero (*column 3 lines 5-14*).

However, Ohno does not disclose any specifics of the pixels nor does Ohno give specifics of periods, frames, or durations of timing for the display unit besides the duration of the scanning and driving periods.

Aoki does disclose wherein a pixel is coupled to a storage capacitor (*figure 9 reference 119 and 105 coupled together*), with the means comprising storage capacitor circuitry for driving the pixel via the storage capacitor (*figure 9 reference PG and PS*), wherein one side of a pixel is coupled to a common electrode and an other side is coupled to a storage capacitor (*figure 9 reference 105 coupled to ground*), which is adapted to provide shaking data pulses (*PG PS, it is understood by examiner that shaking data pulses are the same as pre-charge pulses in view of applicant's specification page 5 lines 15-17 wherein these shaking pulses create shorter switching times when applied before data pulses*).

Yamakawa discloses a basic driving waveform for a bistable LCD (*paragraph [0010] and figure 6a*) with a reset period (T_{rs}), driving period (T_i), and selection period (T_s).

It would have been obvious to one skilled in the art at the time of the invention to provide a pre-charge circuit as disclosed by Aoki to prevent vertical cross talk as disclosed by Aoki (*paragraph [0012]*). Wherein the combination of data supplied by either the capacitors (pre-charge) or transistors (data) would follow the same methodology disclosed by Ohno wherein the information data is supplied in opposite phases to make the average voltage of the information pulses zero.

It further would have been obvious that Ohno's driving waveform could have the timing duration as shown by Yamakawa figure 6a with the specifics of the selection and driving period as shown by Ohno figure 4, disclosed as a prior art driving waveform from Yamakawa.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER E. LEIBY whose telephone number is (571)270-3142. The examiner can normally be reached on 9 - 5 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alex Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4142.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Application/Control Number: 10/599,192

Page 9

Art Unit: 2629

/Amr Awad/

Supervisory Patent Examiner, Art Unit 2629

September 25th, 2008